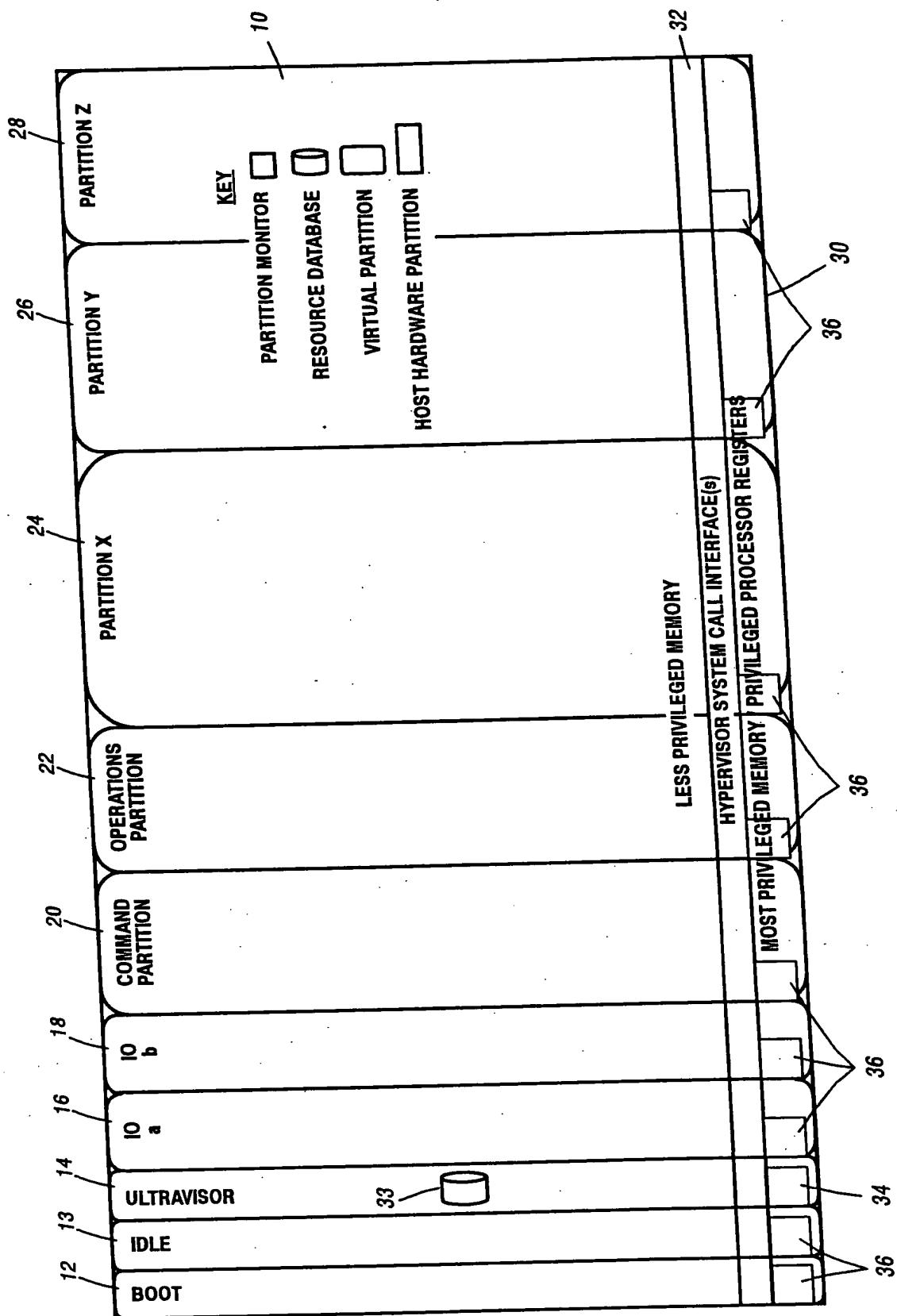


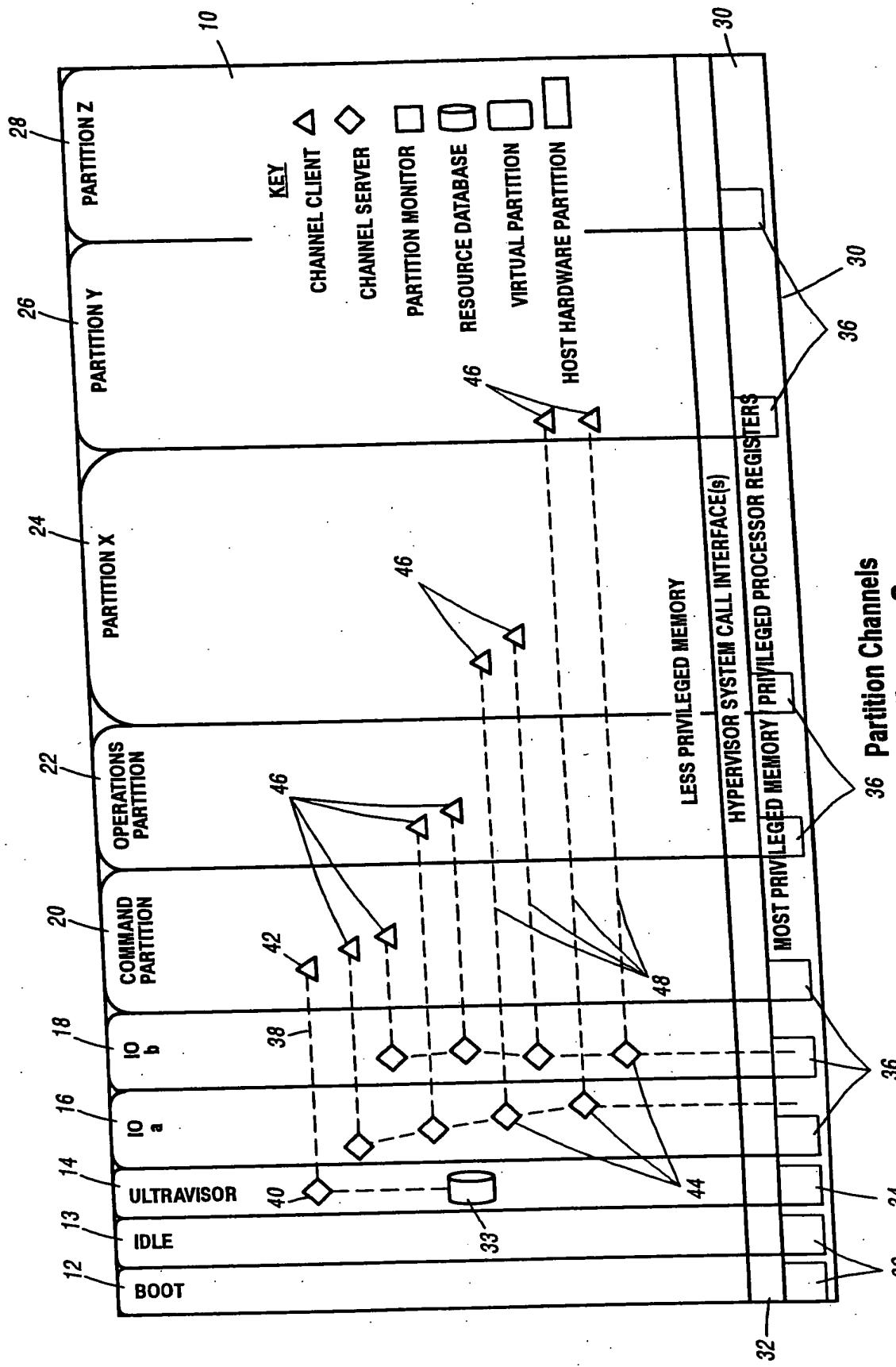
Figure 1

Partitioned Host System

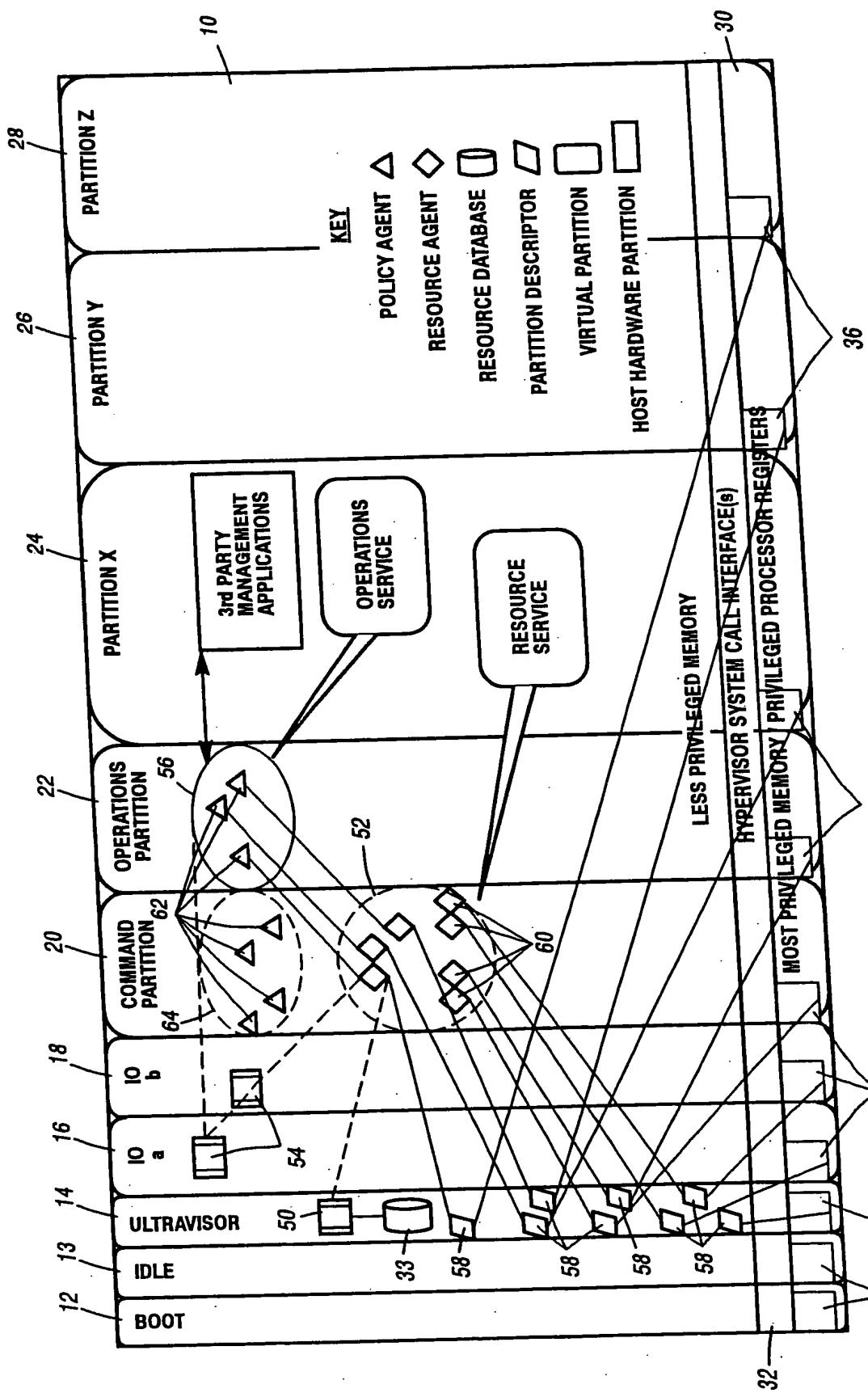


Partition Monitors

Figure 2

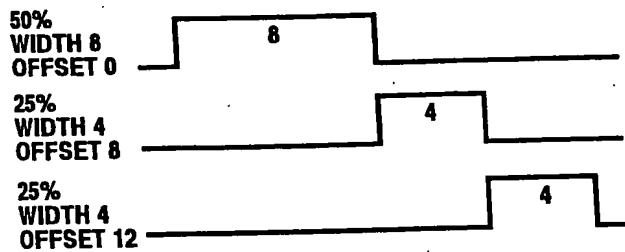


36 Partition Channels *Figure 3*



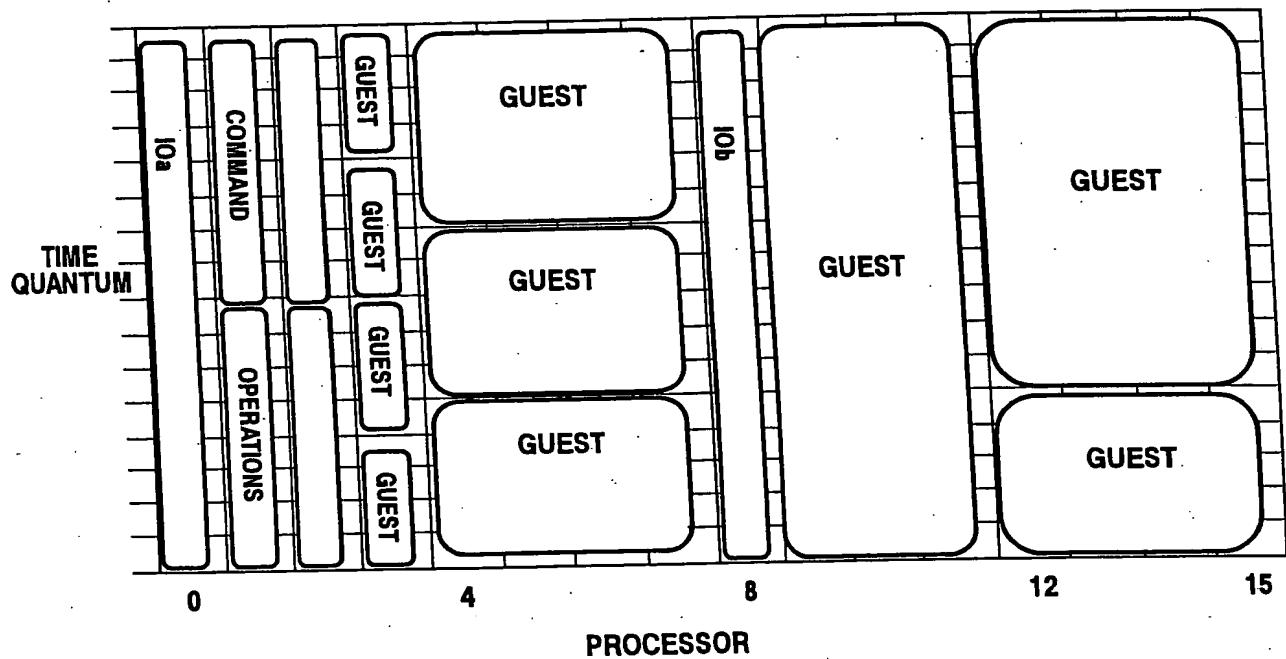
Ultravisor Operations
Figure 4

OVERLAPPED PROCESSOR THROTTLING - DEFAULT 4 BIT DUTY WIDTH (1/16 = 6.25%)



Processor Sharing

Figure 5



Processor Schedule

Figure 6

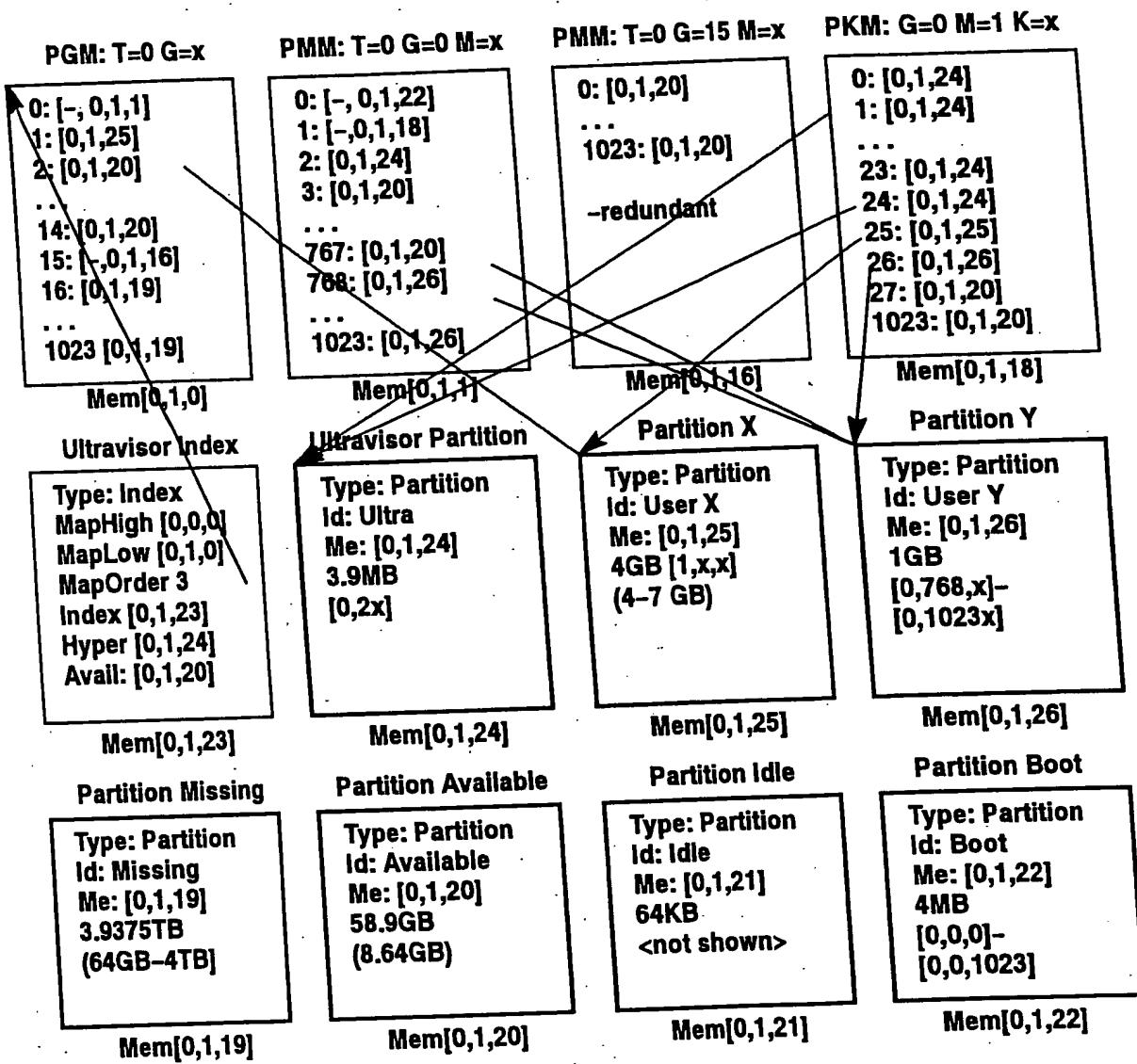
$(2^{10})^n$	SI Prefix	SI Name	Page Table	Pageantry	IA32/EM32T
1	K	kilo	PKM	PKE	PT/PTE
2	M	mega	PMM	PME	PD/PDE
3	G	giga	PGM	PGE	PDP
4	T	tera	PTM	PTE	PML4
5	P	peta	PPM	PPE	
6	E	Exa	PEM	PEE	
7	Z	zetta	PZM	PZE	
8	Y	yotta	PYM	PYE	

SI Prefixes for Page Table Hierarchy

Figure 7

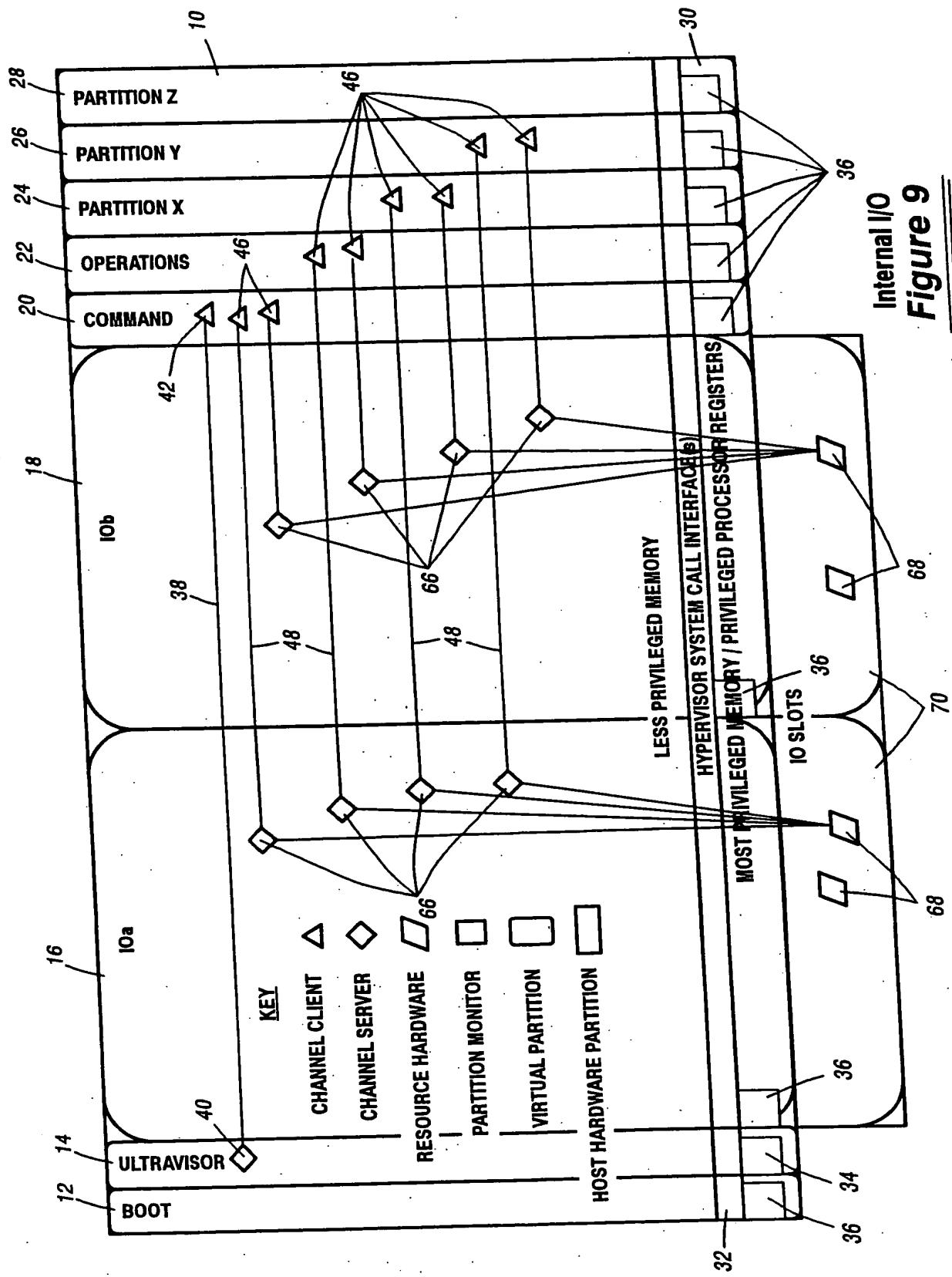
Function GetMemoryOwner [T : 0..1023, G:0..1023, M:0..1023, K:0..1023] of Int32

Memory Index Ref	1	GB	MB	KB
Partition number (32 bits)	O S	Node (GB)	MB	KB



Where Mem[G,M,K] := ((G * 2^{10+M}) * 2¹⁰ + K) * 2^{10*2^2}

Partition Memory Map
Figure 8



Internal I/O
Figure 9

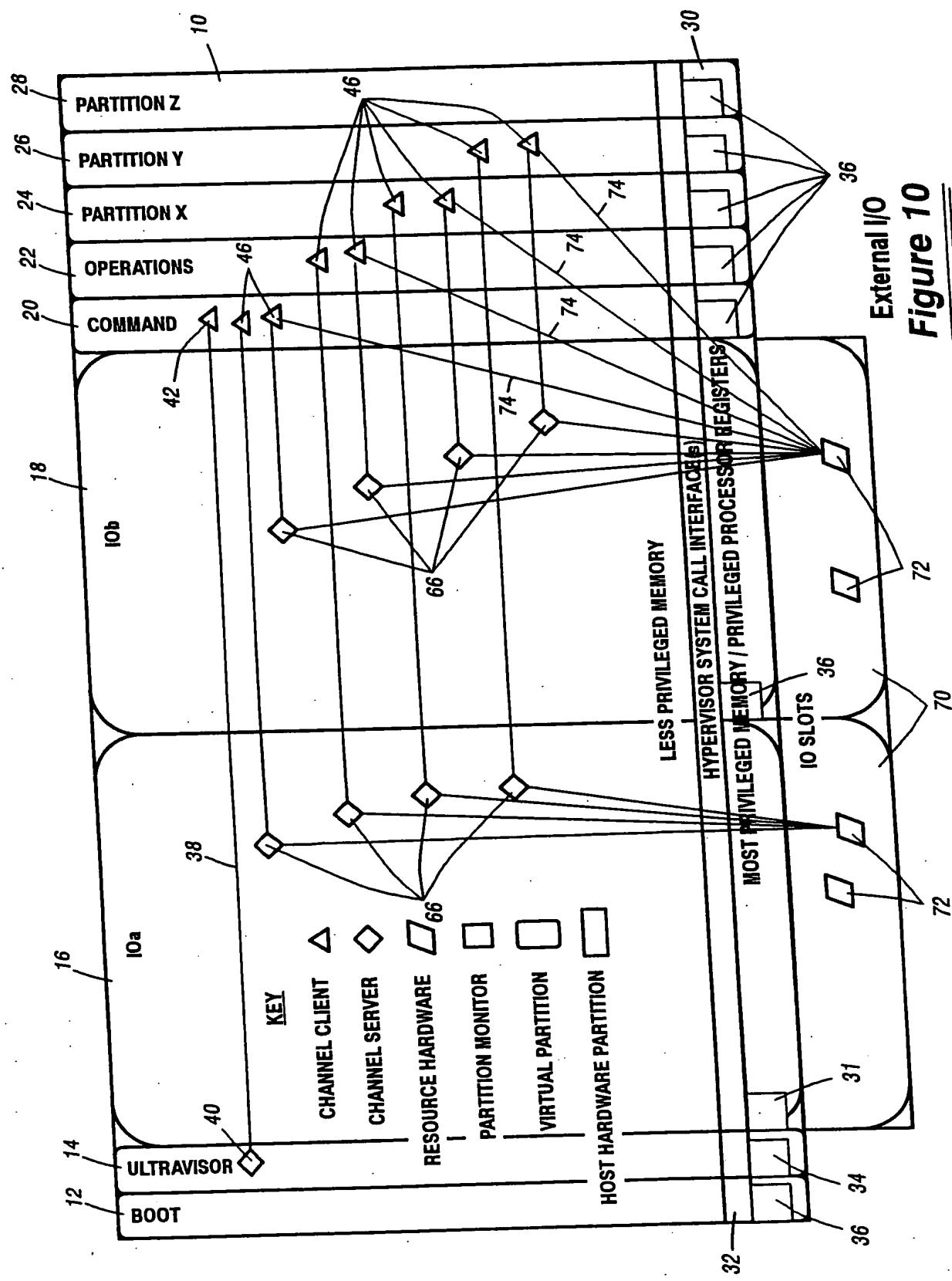
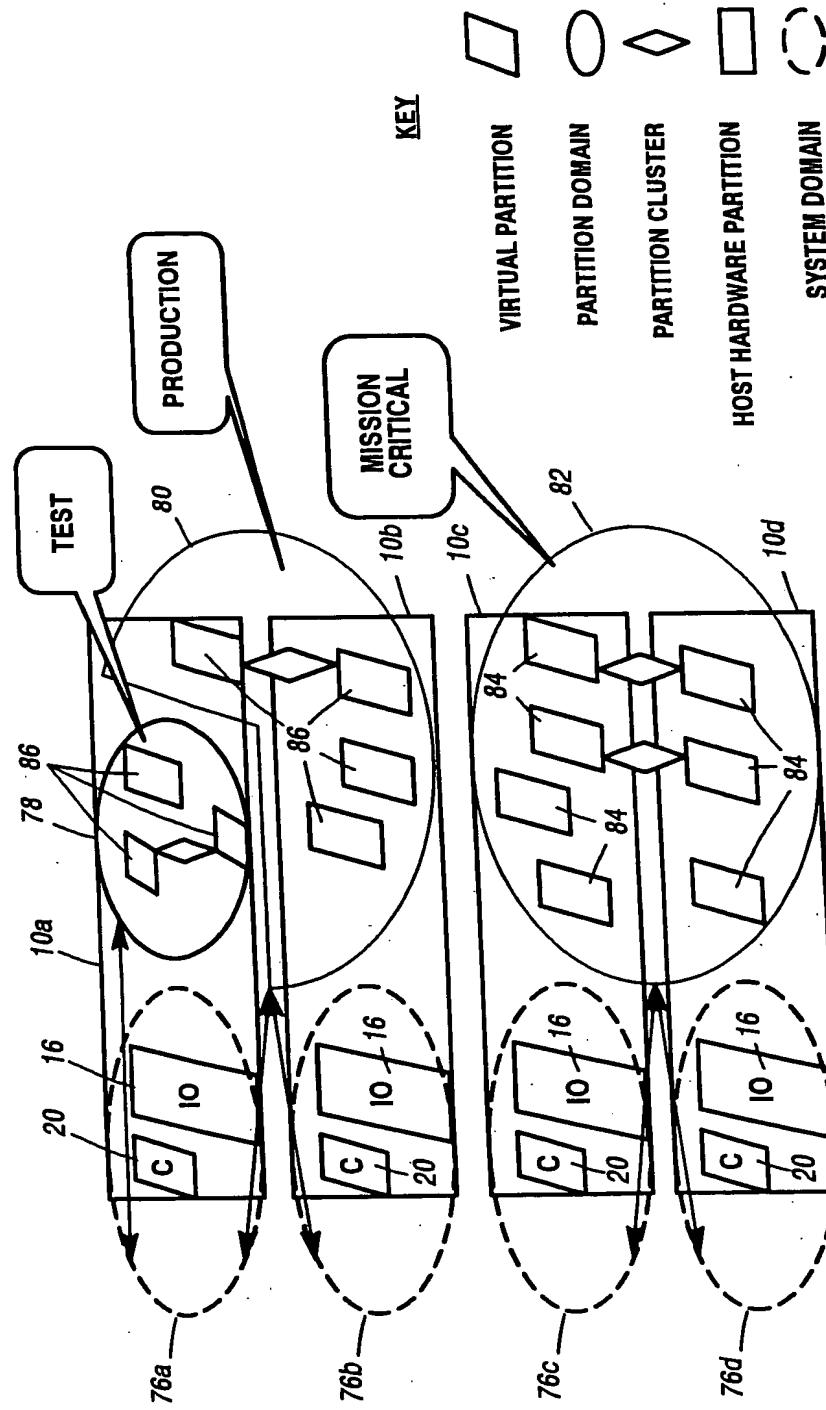
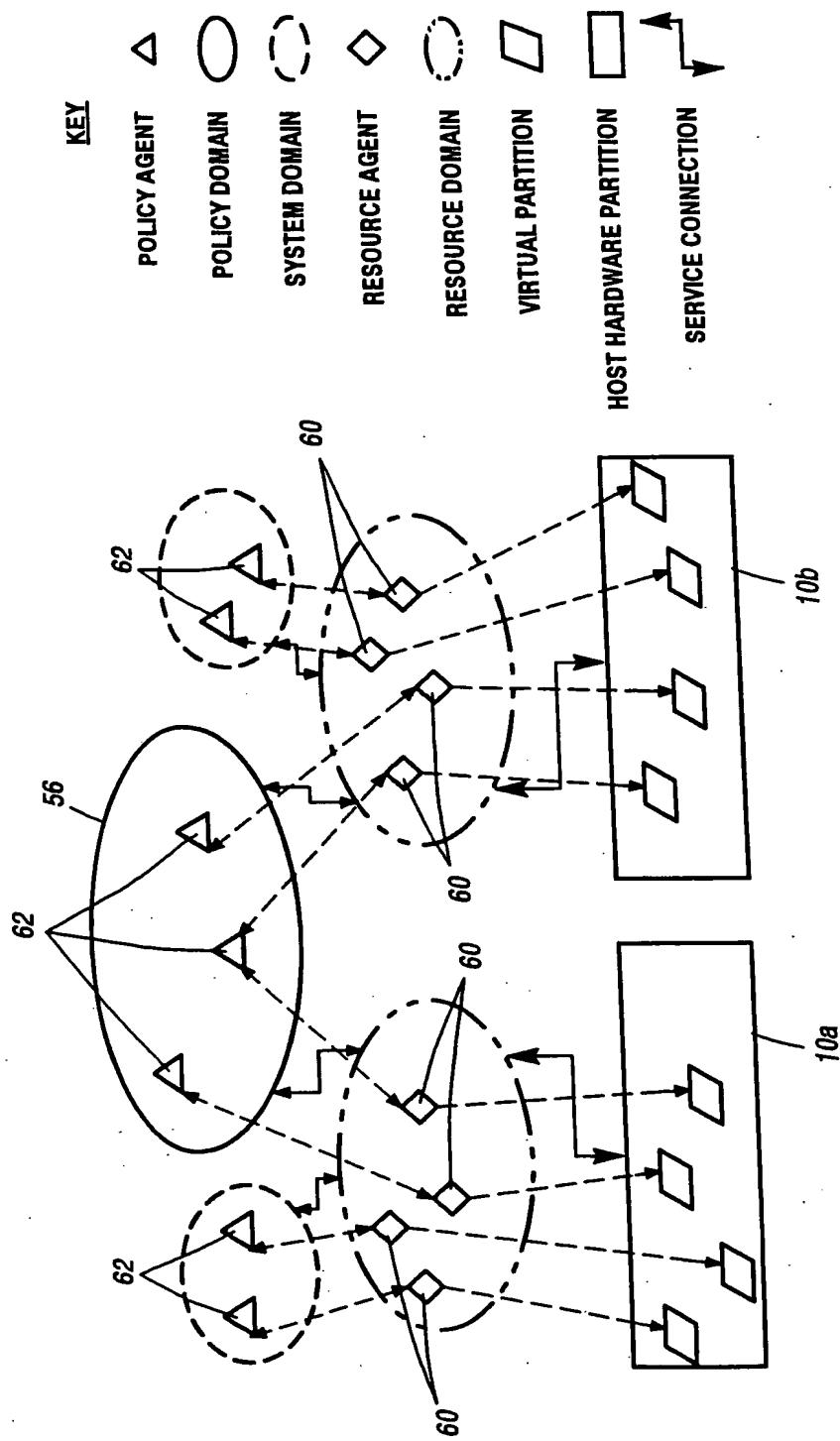


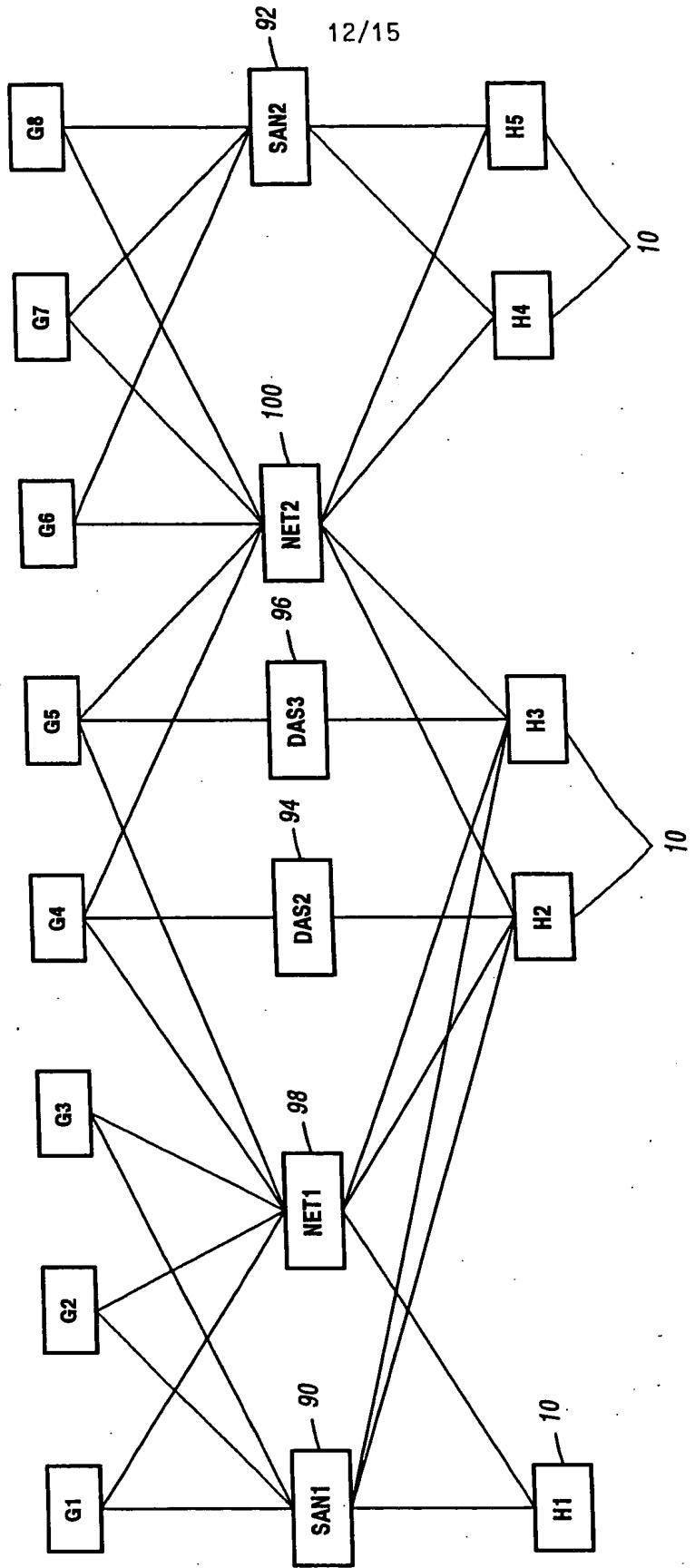
Figure 10



Ultravisor Domains
Figure 11



**Ultravisor Partition Agents
Figure 12**



Virtual Data Center Zones
Figure 13

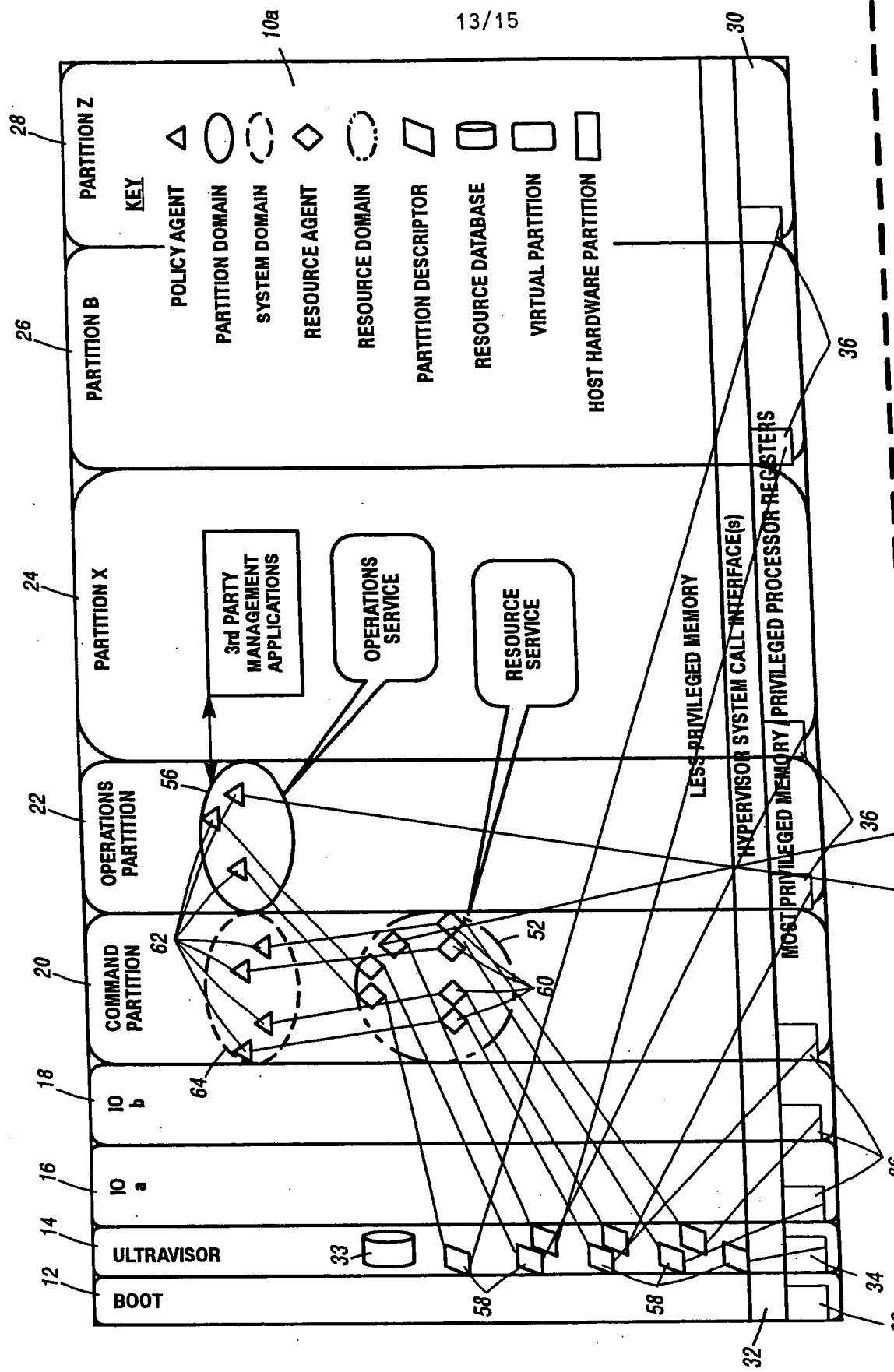
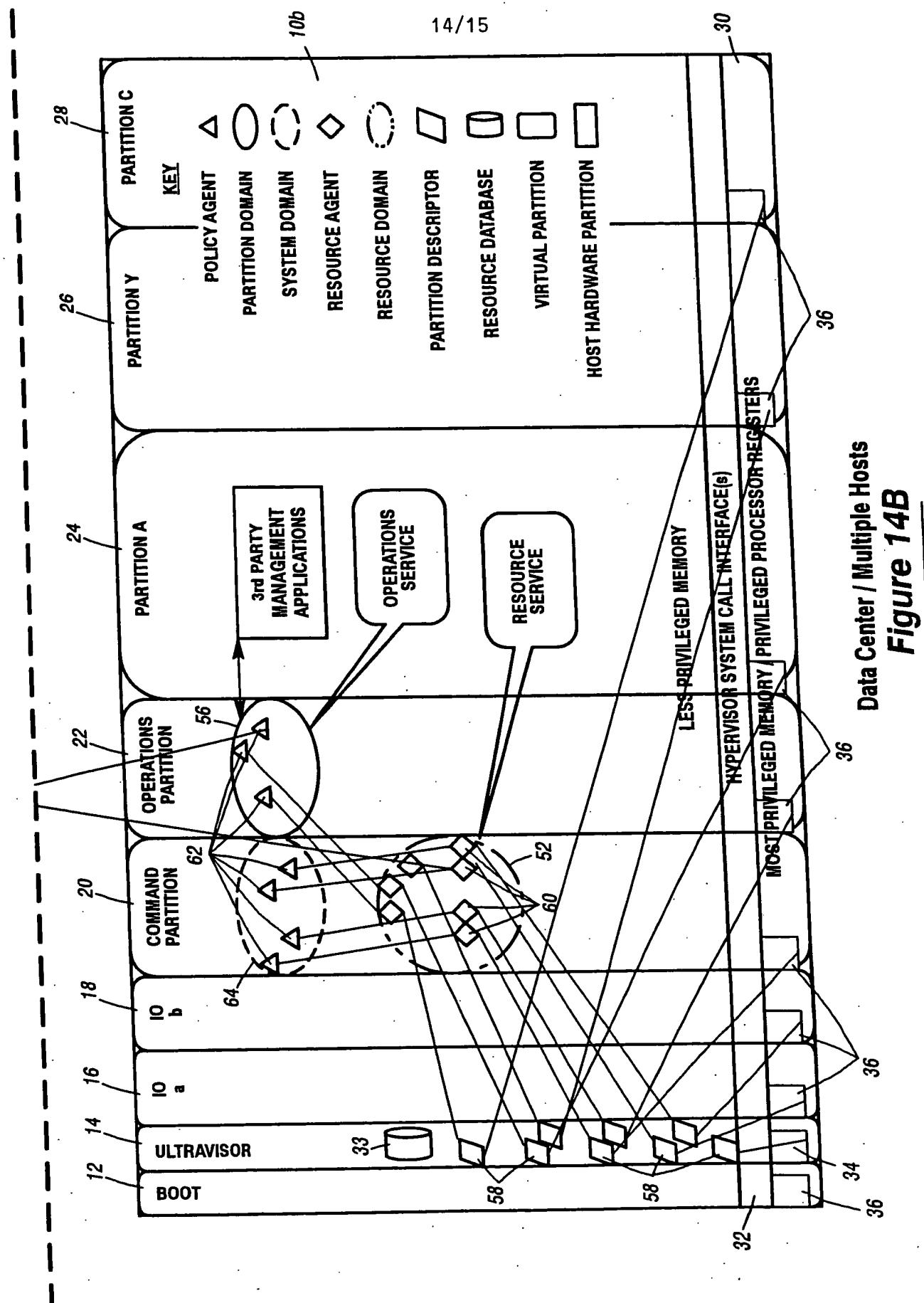
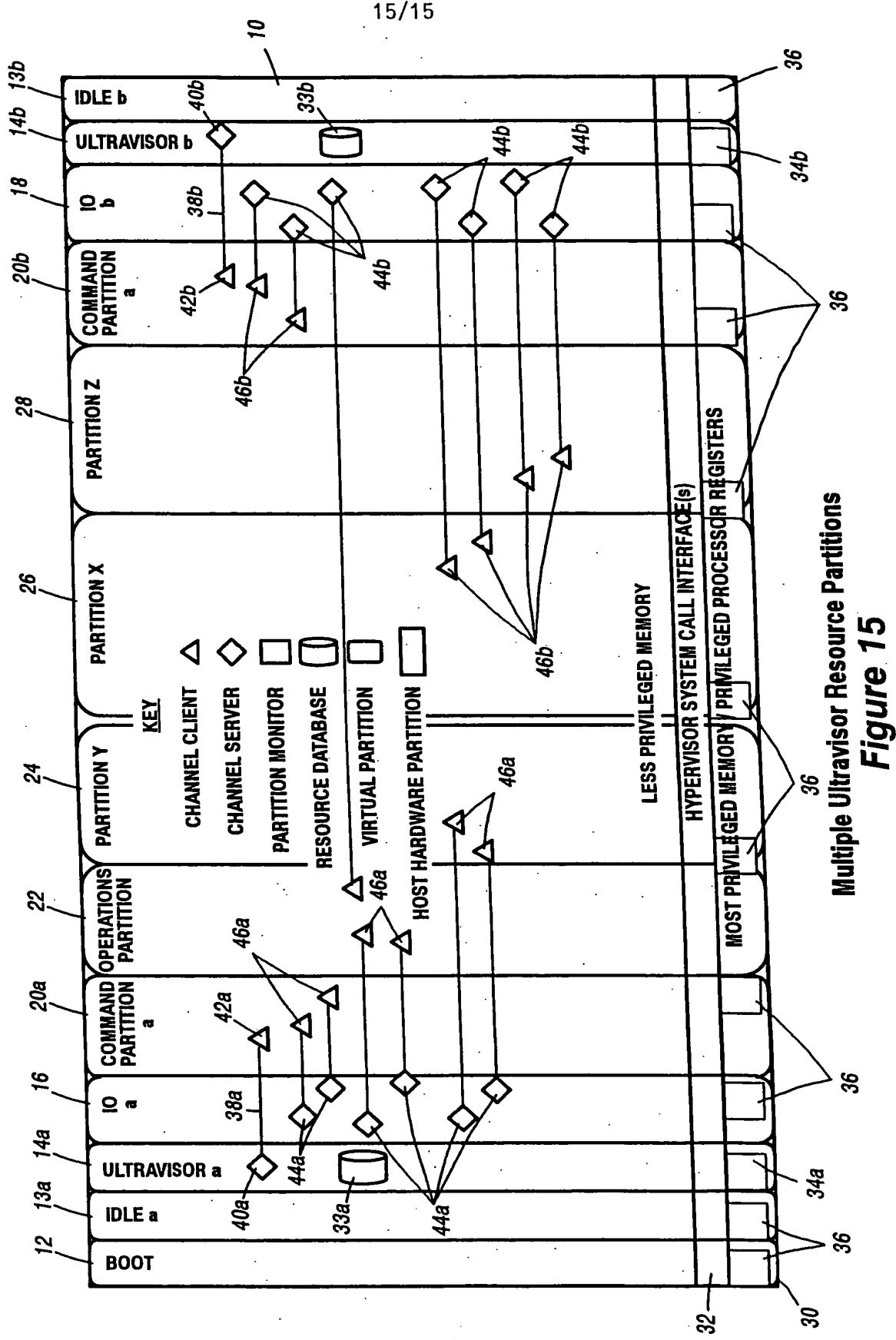


Fig. 14A
Figure 14

Fig. 14B
Figure 14A



Data Center / Multiple Hosts
Figure 14B



Multiple Ultravisor Resource Partitions

Figure 15